



The effectiveness of yoga therapy to reduce the level of depression among elderly in the community

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ABSTRAK

Latar Belakang : *Depresi adalah salah satu penyakit yang paling umum di kalangan lanjut usia. Depresi menunjukkan gangguan suasana hati, gejala fisik dan kognitif. Gejala depresi yang berhubungan dengan gangguan mood termasuk kesedihan, kehilangan minat dalam aktivitas, perasaan tidak berharga, kematian, dan pikiran untuk bunuh diri. Deteksi dini depresi pada lansia dapat diketahui jika lansia diketahui memiliki faktor-faktor yang dapat menyebabkan depresi. Yoga adalah terapi non farmakologis yang digunakan untuk mengobati depresi. Gerakan yoga terdiri dari tiga tahap, pranayama (pengendalian napas), asana (suhu tubuh), dan meditasi (relaksasi pikiran), gerakan-gerakan ini sangat penting untuk mengatasi masalah stres dan depresi.*

Tujuan : *Mengetahui efektivitas terapi yoga dalam mengurangi depresi pada lansia di masyarakat.*

Metode : *penelitian ini menggunakan metode kuantitatif dengan desain quasi eksperimen dengan pre-test post-test without control. Lokasi penelitian di Desa Gedongan, Kecamatan Baki, Sukoharjo, Jawa Tengah, pada bulan Maret-Mei 2021, jumlah sampel lansia sebanyak 47 orang dengan menggunakan metode purposive sampling. Kriteria inklusi meliputi usia 60 tahun, skor GDS minimal 5, tidak ada kelainan ekstremitas, dan beragama Islam. Skrining untuk depresi menggunakan Geriatric Depression Scale (GDS). Media yang digunakan adalah video dan booklet, menggunakan musik klasik religi Islam dan analisis data menggunakan uji Wilcoxon.*

Hasil : *Hasil menunjukkan rata-rata tingkat depresi responden pada saat pre-test adalah 8,40 sedangkan pada post-test menurun menjadi 4,77 atau selisih rerata sebesar 3,63 dengan p-value 0,001 ($p < 0,05$). Terapi yoga dan program pernapasan memiliki efek yang luar biasa dan menyegarkan.*

Kesimpulan : *Tingkat depresi pada lansia menghasilkan nilai rata-rata pre-test lebih tinggi daripada nilai post-test, yang berarti tingkat depresi setelah terapi yoga mengalami penurunan.*

KATA KUNCI : *komunitas; depresi; lanjut usia; terapi yoga*

ABSTRACT

Background : *Depression is one of the most common diseases among the elderly. Depression indicates disturbances in mood, physical and cognitive symptoms. Depression symptoms related to mood disorders include sadness, loss of interest in activities, worthlessness, and death, and suicidal thoughts. Early detection of depression in elderly can be noticed if the elderly have been known to possess factors that may cause depression. Yoga is a non-pharmacological therapy used to treat depression. Yoga movements consist of three stages, pranayama (breath control), asana (body temperature), and meditation (relaxation of the mind), these movements are very important to overcome stress and depression problems.*

Objectives : To purpose the effectiveness of yoga therapy in reducing depression in the elderly in the community.

Methods : This research uses the quantitative research method with quasi-experimental with pre-test post-test design without control. The research site was in Gedongan Village, Baki Sub district, Sukoharjo, Central Java, in March-May 2021, with a total of 47 elderly using the purposive sampling method. Inclusion criteria include 60 years old, GDS score minimum 5, no extremity disorders, and Muslim. Screening for depression employed the Geriatric Depression Scale (GDS). The media used were videos and booklets, using Islamic religious classical music and data analysis used the Wilcoxon test.

Results : The average depression level of respondents during the pre-test was 8.40 while the post-test decreased to 4.77 or a mean difference of 3.63 with a p-value of 0.001 ($p < 0.05$). Yoga therapy and breathing program have a remarkable and refreshing effect.

Conclusion : The conclusion is that the level of depression in the elderly resulted in a higher pre-test average value than the post-test value, which means that the level of depression after yoga therapy has decreased.

KEYWORD: community; depression; elderly; yoga therapy

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INTRODUCTION

Elderly are residents aged 60 years or more. The high elderly population in Indonesia results in numerous problems, one of the psychological health problems that are often encountered in elderly is depression. Depression is one of the most common diseases among elderly. The results of the 2013 Basic Health Research report stated that the prevalence of the older adults aged 55-64 years who experienced depression was 15.9%, 65-74 years was 23.2%, and the over 75 years was 33.7% (1).

Cognitive symptoms of depression can be in the form of difficult decision-making, decreased concentration, and physical symptoms that may appear, such as fatigue, loss of appetite, decreased activity levels, slow motion, and disturbed sleep patterns (2). The presence of depression in elderly is often undetected, misdiagnosed, or not properly managed. Symptoms of depression are often associated with medical problems in the aging process rather than as a sign of depression

itself (3). The impact of depression on the elderly is detrimental. Depression that is not handled properly can lead to an increase in the use of health facilities, a negative effect on the quality of life of older adults, and even lead to death.

Early detection of depression in the elderly can be done if they are noticed to possess factors that may cause depression. Yoga is one of the non-pharmacological therapies and a form of physical activity that aims to improve health suitable for elderly suffering from depression. Recent research has demonstrated the beneficial effects of yoga on health outcomes affecting balance and mobility, cardiometabolic, cognition, quality of life, and sleep quality. Yoga practice also improves mental health such as depression and anxiety. (4) a mind-body therapy, is a safe nonpharmacological approach for managing osteoarthritis (OA).

Continuous physical exercise in yoga therapy for 45-60 minutes with deep breathing relaxation techniques and music will provide a sense of relaxation in the body. With the stretching

of the muscles in yoga therapy, it can release the muscles to contract and relax gradually to improve blood flow (5). According to research, physical exercise may reduce depression and increase social perception support among participants. Especially participants in a physical activity exercise group can reduce their symptoms of depression for a longer period and improve physical fitness as well as the quality of life. To increase the long-term effectiveness, some interventions can be added for example social resources (experts and community centers) for developing self-help groups (6).

Data from the Sukoharjo public health office show that the prevalence of depression was 4.67% of the 1,767 population aged > 15 years. Based on data from the Baki Community Health Center, elderly experienced depression totaling 21 people based on visits to the Community Health Center in 2020. Based on the data on Depression in Gedongan Village from five integrated health services, there were 112 elderly, 47 of them suffered from depression. Based on observations and interviews with the older adults in Gedongan village, several older adults experienced symptoms of changes in mental conditions that led to depression.

The novelty of this research is that yoga therapy given to elderly is a combination of yoga therapy, progressive relaxation, and Guided Imagery with a combination of Mindfulness therapy to approach Allah SWT, especially as Muslims, as well as using Islamic religious music in the implementation of therapy. The entire series of therapy was carried out while sitting on the floor.

The purpose of this study is to determine the effectiveness of yoga therapy in reducing depression among elderly in society.

MATERIALS AND METHODS

The type of research used is quantitative. The research design is quasi-experimental. The study was conducted from March to May 2021 in

Gedongan Village, Baki Sub district, Sukoharjo, Central Java. Respondents in this study were 47 elderly through purposive sampling. The inclusion criteria are aged 60 years, GDS score 5, no experience in extremity disorders, Muslim. The instrument used the Geriatric Depression Scale (GDS) Questionnaire *short form* from Greenberg (7), the results of the validity test obtained a value of ≤ 0.4438 (r table) and the reliability test with the results of 0.886 or 88.6%, then the questionnaire used is declared valid and reliable. Therapeutic yoga movements start with warm-up, core, and closing exercises. These therapeutic yoga movements involve both upper and lower extremities. The media used were videos and booklets, using Islamic religious classical music. Yoga therapy was performed twice a week with a total time of 50 minutes each session and was carried out for 12 weeks. The time allocation and movement for each session include warming up (5 minutes): bring the right and left feet together, hold the tip of toe with the palms, then bend both knees and calves; bend the left leg and put the right leg between the thigh and calf, look to the right side, hold shoulder with the left hand and hold the back with the right hand while inhaling. Core Parts (20 minutes): dynamic spinal twist, knee bending technique, rowing technique (*naukasanchalana*), *Karmasana*, *Bhastriksana* breathing technique 1, *Bhastriksana* breathing technique 2. Progressive relaxation (10 minutes): Wrinkle forehead, tighten shoulders, contract arms (biceps), and contract calves. Guided Imagery combined with mindfulness therapy (10 minutes): *Istighfar* (remembering Allah SWT), guide the patient's self-development. At this stage, humans are trained to develop positive potential while listening to calm music. Closing (5 minutes): Pray and ask the patient's feelings and complaints after therapy. Data analysis applied Wilcoxon Test.

RESULTS AND DISCUSSION

Characteristics of Respondents

Characteristics of respondents comprise age, gender, occupation, and education.

Based on **Table 1**, it can be determined the majority aged 60-69 years, covering 31 respondents (66%), at the age of 60-74 years, many elderly suffer from depression. This is because the elderly have not adapted to changes/physical and psychological stressors on themselves and have not fulfilled their developmental tasks as elderly (8). The gender of the respondents is majority female of 38 respondents (80.9%). Previous research found that depression is more likely to happen in female elderly (Parasari Gusti Ayu & Lestari Made Diah, 2015). A study suggests that women appear to be depressed 2 times more compared to men because they are more prone

Table 1. Distribution of respondent characteristic of elderly with depression by age, gender, education, and occupation

Characteristics	Frequency (N=47)	%
Age		
60-69	31	66
≥ 70	16	34
Gender		
Male	9	19.1
Female	38	80.9
Occupation		
Unemployed	9	19.1
Housewife	16	34
Farmer	9	19.1
Private employee	13	27.7
Education		
Dropout	5	10.6
Elementary	14	29.8
Junior High	18	38.3
Senior High	7	14.9
Diploma	3	6.4

to be exposed to trigger/exposure factors that cause depression (10). The occupation of respondents is housewife totaling 16 people (34%) with most of them being older adults who are unemployed or housewives, which also has an impact on the economic income of the older adults. The results of this study are supported by Yacob's theory (2014) that income greatly determines the occurrence of depression and poor social-economic conditions (8). Most of them are junior high school graduates with 18 respondents (38.3%). Education is the initial capital in cognitive development, which cognitive can be an individual mediator in acting and solving a problem (10).

Frequency Distribution of Depression Levels

The results below are the distribution of the Depression Level values, encompassing Pre-test, Post-test, and Normality test results.

Table 2 describes the frequency distribution of the depression level of elderly. In the post-test, it was found those in the normal category were 38 respondents (80.9%) and the elderly at the expressing depression level were 9 people (19.1%). Compared to the pre-test group, 39 people (83%) were depressed, and 8 people were always depressed (17%).

Elderly is strongly advised to increase physical activity. In addition to maintaining physical health, physical activity can also prevent psychological problems in elderly, especially depression. In addition, through activities, the elderly can gather and communicate with other peers, eliminating the feeling of loneliness and worthlessness (11).

Table 2. Frequency distribution of pre-test, post-test, and normality tests

Depression Levels	Pre-test		Post-test		P-value
	Frequency	%	Frequency	%	
0-5 (Normal)	0	0	38	80.9 %	0.001
>5-9 (Express depression)	39	83 %	9	19.1 %	
≥ 10 (Always depressed)	8	17 %	0	0	
Total	47	100%	47	100%	

Bivariate Analysis

The table below describes the results of data analysis on the effectiveness of Yoga Therapy in reducing depression in elderly.

Table 3 below shows a significant difference between the average levels of depression in the treatment group. The results of the Wilcoxon test obtained that the average depression level of the respondents during the pretest was 8.40 while at the posttest decreased to 4.77 or a mean difference of 3.63 with a p-value of 0.001 ($p < 0.05$), implying that there was an effect of giving Yoga Therapy on decreasing the level of depression during pre-test and post-test. Thus, H_0 is rejected, meaning that there was an effect of administering yoga therapy to decrease depression level in older adults in Gedongan Village, Baki Subdistrict, Sukoharjo.

Table 3. Data Analysis Results of Depression Level

Variable	Mean	SD	P-Value
Pre-test	8.40	± 1.245	0.001
Post-test	4.77	± 1.108	

Yoga stretching therapy and breathing program have a remarkable and refreshing effect. The practice of yoga heals and strengthens the body, hones the mind, and soothes the soul to accommodate the lack of flexibility that many elderly may experience (12).

DISCUSSION

The thermogenic theory explains that the increase in body temperature after exercise is useful for reducing symptoms of depression. An increase in temperature in the brainstem region will cause relaxation and loose muscle tension. Endorphin theory explains that exercise will have a positive effect on positive feelings and overall increase feelings of health and well-being (13). Physical activity in the lowest intensity range brings an impact on participants in good health and function. Increased muscle strength and

lower leg strength are the results of balance and agility in Thai Yoga which can improve health and well-being significantly. (14)

The practice of yoga heals and strengthens the body, sharpens the mind, and calms the soul and to accommodate the lack of flexibility that many elderly experience. Elderly respondents experienced stretching and relaxation in the program, between their bodies and minds being challenged and entertained at the same time, this was the reason for the improvement of sleep quality, self-perception of health status and decreased depression of the participants. (12)

The results of the above study proved that yoga therapy can reduce depression, this study is in line with research by Park, et al which stated that Chair Yoga decreased depression significantly over time for all groups ($P < 0.001$). Chair Yoga helps respondents to be able to engage in activities that can improve their physical, social and emotional well-being despite chronic illness. Regarding this therapy activity, participants are involved in discussions and activities, so participants can socialize with other friends so that they can influence the results of depression symptoms and social activities for the better.(15)

The results implicate that Yoga therapy can boost mood, reduce stress, anxiety, and depression in postmenopausal women with Restless Legs Syndrome (RLS). Yoga therapy can maintain mood, reduce pain and discomfort associated with RLS, reduce stress, increase feelings of well-being and improve sleep quality, decrease muscle arousal, and promote positive changes in metabolic status, neuroendocrine function, and inflammatory responses (16) well-being, and quality of life. Unfortunately, the medications used for RLS management carry risk of serious side effects, including augmentation of symptoms. Yoga, an ancient mind-body discipline designed to promote physical, emotional, and mental well-being, may offer a viable, low-risk

new treatment. The primary objectives of this pilot, parallel-arm, randomized controlled trial (RCT).

CONCLUSIONS AND RECOMMENDATIONS

There was a significant effect before and after administering Yoga Therapy to the elderly with depression in Gedongan Village, Baki Subdistrict, Sukoharjo, Central Java, with a P-value of 0.001. The level of depression in the elderly who were involved in yoga therapy changed because the pretest value of 47 respondents was higher than the posttest value, and following the intervention the mean of depression in the elderly decreased. Yoga therapy is good in reducing depression among elderly so there is a need for disseminating and training to Cadres about the Yoga Therapy program so that they can become trainers at the elderly Integrated Health Service.

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